

Claims

1. A collapsible medical device comprising an outer metal fabric surrounding an inner metal fabric, said outer and inner metal fabrics each having a plurality of braided metal strands with an expanded preset configuration and proximal and distal ends, said proximal and distal ends having means for securing the plurality of braided strands comprising the inner and outer metal fabrics together, the medical device being shaped to create an occlusion of an abnormal opening in a vascular organ, said expanded preset configuration being deformable to a lesser cross-sectional dimension for delivery through a channel in a patient's body the outer and inner metal fabrics having a memory property such that the medical device tends to return to said expanded preset configuration when unconstrained.
2. The medical device of claim 1 wherein the pitch of the braided metal strands comprising the outer and inner metal fabrics are generally equal.
3. The medical device as in claim 1 wherein the braided metal strands comprising the outer metal fabric are of a larger diameter than the braided metal strands comprising the inner metal fabric.
4. The medical device as in claim 3 wherein the number of braided metal strands comprising the inner metal fabric is greater than the number of braided metal strands comprising the outer metal fabric.
5. The medical device as in claim 1 wherein the number of braided metal strands comprising the outer metal fabric is 72 and the number of braided metal strands comprising the inner metal fabric is 144.

6. The medical device as in claim 1 wherein the diameter of the braided metal strands comprising the outer metal fabric is in a range from 0.003 to 0.008 inches and the diameter of the braided metal strands comprising the inner metal fabric is in a range of from 0.001 to 0.002 inches.

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7. The medical device as in claim 1 and further including a third metal fabric disposed within the confines of the inner metal fabrics, said third metal fabric comprising a plurality of braided metal strands with an expanded preset configuration corresponding to the expanded present configuration of the outer and inner metal fabrics, the plurality of braided metal strands of the third metal fabric having proximal and distal ends that are secured to the respective proximal and distal ends of the plurality of braided strands comprising the outer and inner metal fabrics.

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8. The medical device as in claim 7 wherein the pitch of the braided metal strands comprising the third metal fabric is equal to the pitch of the braided metal strands comprising the outer and inner metal fabrics.

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9. The medical device as in claim 7 wherein the diameter of the braided metal strands comprising the third metal fabric is equal to the diameter of the braided metal strands comprising the inner metal fabric.

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10. The medical device as in claim 7 wherein the number of braided metal strands comprising the third metal fabric is equal to the number of braided metal strands comprising the inner metal fabric.

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11. The medical device as in claim 7 wherein the number of braided metal strands comprising the third metal fabric is 144.

12. The medical device as in claim 9 wherein the diameter of the braided metal strands comprising the third metal fabric is in a range of from about 0.001 and 0.002 inches.

5 13. The medical device as in claim 1 wherein the means for securing the braided metal strands at the proximal and distal ends of the outer metal fabric is independent of the means for securing the braided metal strands at the proximal and distal ends of the inner metal fabric.

10 14. The medical device as in claim 1 wherein the means for securing the plurality of braided metal strands comprising the inner and outer fabrics together include first and second clamps joined individually to all of the strands of the outer and inner metal fabric at the proximal and distal ends thereof.

15 15. The medical device of claim 1 wherein the expanded preset configuration of the outer metal fabric is of a different geometrical shape than the expanded preset configuration of the inner metal fabric.